

Pre-Algebra

To do now:

- ✓ **Test today. Have two sheets of paper for scrap work.**
- ✓ **If you have your Solving equations guide that I gave you this week, you can also use it.**
- ✓ **ALL answers should be marked on the answer sheet.**
- ✓ **Calculators can be used.**

FORMULAS FOR TEST:

AREA OF RECTANGLE = LENGTH \times WIDTH (BASE \times HEIGHT)

AREA OF TRIANGLE = $\frac{1}{2}$ (BASE)(HEIGHT)

Agenda:

- ✓ **Test on Chapter 5**

Homework:

Notebook check Thursday, Jan. 13th.

Oct 26-11:27 AM

Introduction to Algebra

To do now:

- ✓ **Complete Warm Up**
- ✓ **Have homework on your desk**
(Money Word problems)

Warm Up:

30 is what percent of 10?

Agenda:

- ✓ **Mixture Word Problems**

Homework:

Mixture Word Problems

Oct 26-11:27 AM

#7

	VALUE	QUANT.	TOT VAL
REG	9	X	9X
OT	13.5	11-X	13.5(11-X)

TOTAL \$ = REG TV + OT TV

$$114.75 = 9X + 13.5(11-X)$$

Jan 7-8:33 AM

#6

	QUANT	VALUE	TOT VALUE
ADULT	720-X	2.5	2.5(720-X)
STUDENTS	X	1.5	1.5X

ADULT TOTAL VALUE + STUDENT TOTAL VAL = TIX TOTAL VAL

$$2.5(720-X) + 1.5X = 1220$$

$$1800 - 2.5X + 1.5X = 1220$$

$$-1X = -580$$

Jan 7-8:39 AM

#9	QUANT	VALUE	TOTAL
NICKELS	$X+14$	5	$5(X+14)$
DIMES	X	10	$10X$
QUARTERS	$102-(X+X+14)$	25	$25(102-(X+X+14))$

Jan 7-8:44 AM

Mixture Problems

Same idea as Money Problems:

except it is Volume (Quantity) and Concentration (Value)

Also,

→ Percentages should be made into decimals.

Water is 0% acid

Acid is 100% acid

Evaporation loses water.

Dilution adds water

Salt is 100% salt

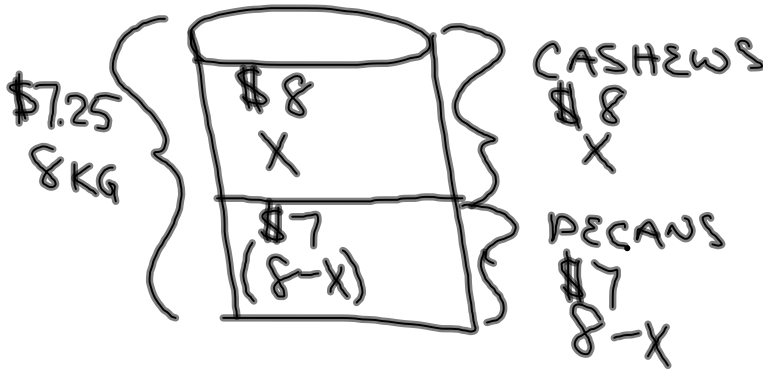
$$\text{Concent}(\text{vol})_1 + \text{concent}(\text{vol})_2 = \text{new concent}(\text{vol})$$

Jan 7-7:32 AM

The owner of the Fancy Food Shoppe wishes to mix cashews selling at \$8.00 per kilogram and pecans selling for \$7.00 per kilogram. How much of each kind of nut should be mixed to get 8 kg worth \$7.25 per kilogram?

	QUANTITY	VALUE	TOT VAL.
CASHEWS	x	8	$8x$
PECANS	$8 - x$	7	$7(8 - x)$
MIX	8	7.25	$8(7.25)$

} +
=



Jan 7-7:30 AM

A chemist has 40 grams of a solution that is 50% acid. How much water should she add to make a solution that is 10% acid?

	volume	concentration	vol(con)
ACID	40	0.5	$40(0.5)$
WATER	x	0	$0x$
FINAL ACID	$40 + x$	0.1	$0.1(40+x)$

Jan 7-7:53 AM

Advanced Algebra

To do now:

- ✓ **Homework on your desk**
(4-2 Page 145 - 146 #2-50 Evens)
- ✓ **Complete Warm Up**

Warm Up:

Given $0 < ab < 1$, what is known about a & b ?

Agenda:

- ✓ **Multiplying Polynomials by a Monomial Section 4-5**

Homework:

Optional:
Page 155 #2-38 Evens, #41-48

Oct 26-11:27 AM

$$\#38 \quad (3c^2 - 4cd) - (cd + c^2 - d^2)$$

$$3c^2 - 4cd - cd - c^2 + d^2$$

$$3c^2 - 4cd - 1cd - 1c^2 + 1d^2$$

$$2c^2 - 5cd + d^2$$

$$\#30 \quad (A^2B - 3AB^2 - AB^3) + (5AB^2 - 6AB^3)$$

$$\begin{array}{r}
 A^2B - 3AB^2 - 1AB^3 \\
 + \quad \quad \quad + 5AB^2 - 6AB^3 \\
 \hline
 A^2B + 2AB^2 - 7AB^3
 \end{array}$$

Jan 7-12:37 PM

#48

$$5 - (A^2 - 2A - 9) = 10 - (2A + A^2)$$

$$5 - A^2 + 2A + 9 = 10 - 2A - A^2$$

$$\cancel{-A^2} + 2A + 14 = 10 - 2A - \cancel{A^2}$$

$$4A = -4$$

$$A = -1$$

Jan 7-12:42 PM

Multiplying Polynomials by a Monomial

$$\color{blue}{-4x^2}(8x^3 - 3x^2 + x - 9)$$

$$\color{red}{(-4x^2)(8x^3) + (-4x^2)(-3x^2) + (-4x^2)(x) + (-4x^2)(-9)}$$

$$\color{red}{-32x^5 + 12x^4 + (-4x^3) + 36x^2}$$

Jan 7-7:52 AM

$$4 - [8(x - 3) - 5(2x + 9)] = 13$$

$$4 - [8x - 24 - 10x - 45] = 13$$

$$4 - [-2x - 69] = 13$$

$$4 + 2x + 69 = 13$$

$$2x + 73 = 13$$

$$2x = -60$$

$$x = -30$$

Jan 7-12:57 PM